## (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2006/0122524 A1 Jun. 8, 2006 (43) Pub. Date: Kawada et al.

(51) Int. Cl. A61B 5/04

(52) U.S. Cl. ....

## (54) PULSE WAVE TRANSMISSION DETECTION SYSTEM

(75) Inventors: Reiji Kawada, Kuga-gun (JP); Syoichi Takano, Hanno-shi (JP)

> Correspondence Address: SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SHITE 800 WASHINGTON, DC 20037 (US)

- (73) Assignee: BML, INC., Tokyo (JP)
- (21) Appl. No.: 10/519,710
- (22) PCT Filed: Jul. 3, 2003
- PCT/JP03/08477 (86) PCT No.:
- (30)Foreign Application Priority Data

Jul. 3, 2002 (JP) ...... 2002-194553

ABSTRACT

A61B 5/02

Provided is a pulse wave propagation detection system including electrocardiographic signal detection means, and eyeground image detection means for detecting an eyeground image in synchronization with an electrocardiographic signal detected through the detection means, which system further includes means for correlating a change in the diameter of an eyeground vein-which diameter is mea-

**Publication Classification** 

(2006.01)

(2006,01)

600/513; 600/500

sured, at the optic papilla, by use of an eyeground image synchronized with an arbitrary electrocardiographic signal-with the state of pulse wave propagation through an intracerebral blood vessel or with the state of sclerosis of a capillary artery. Provision of the pulse wave propagation detection system; i.e., means for conveniently and accurately identifying the state of blood flow in the brain or the state of sclerosis of a capillary artery, enables prevention of adverse effects of, for example, excessive drop in blood

